INDIVIDUAL BIOLOGICAL ASSESSMENT REPORT

Site Name/Facility:	**Chollas Creek Channel Emergency Maintenance**
Master Program Map No.:	**91&93**
Date:	**March 3, 2016**
Biologist Name/Cell Phone No.:	**Scott Gressard (858-997-6874)**

EXISTING CONDITIONS

The City of San Diego (City) has developed the Master Storm Water System Maintenance Program (MMP, Master Maintenance Program) (City of San Diego 2011) to govern channel operation and maintenance activities in an efficient, economic, environmentally and aesthetically acceptable manner to provide flood control for the protection of life and property. This document provides a summary of the Individual Biological Assessment (IBA) for emergency maintenance activities within the Chollas Creek Channel (MMP Maps 91&93; Figures 3a&3b) in order to comply with the MMP's Programmatic Environmental Impact Report (PEIR) (Attachment 1). IBA procedures under the MMP provide the guidelines for a site-specific inspection of the proposed maintenance activity site including access routes, and temporary spoils storage and staging areas. A qualified biologist determined whether or not sensitive biological resources could be affected by the proposed maintenance and potential ways to avoid impacts in accordance with the measures identified in the Mitigation, Monitoring and Reporting Program (MMRP) of the PEIR and the MMP protocols. This IBA provides a summary of the biological resources associated with the storm water facility, quantification of impacts to sensitive biological resources, and the nature of mitigation measures required to mitigate for those impacts, if any found.

It should be noted that, since this channel work was conducted as emergency maintenance, certain requirements in the MMP could not be directly adhered to in order to conduct the work as quickly as possible and reduce the existing threat from flooding to adjacent properties.

Project Location and Description

The Chollas Creek channel (MMP Maps 91&93; Figures 3a&3b) is part of Hydrologic Unit Basin Number 8.22 and the emergency maintenance area within this section of the creek is generally located north of the Interstate 5 freeway, west of the Interstate 15 freeway, and east of South Gregory St., and south of Imperial Ave. in the neighborhood of Logan Heights within the City of San Diego. This length of channel is a combination of trapezoidal concrete-lined channel (MMP Map 91; Figure 3a) and earthen natural flood channel (MMP Map 93; Figure 3b). There is a single, linear length of channel proposed for emergency maintenance that extends from the beginning of sediment build up just north of the I-15 southbound Ocean View Boulevard Exit south approximately 2,899 feet downstream with an average bottom width of approximately 50 feet. The maintenance area in Chollas Creek is not within or adjacent to the City's Multiple Species Conservation Program (MSCP) Multi-Habitat Planning Area (MHPA) or the City's Coastal Overlay Zone.

Assessments by City staff and engineers were conducted for the earthen and concrete-lined sections of the channel during the week of November 16th, 2015. In the northern section along South Gregory St. (MMP Map 91; Figure 3a), the City's assessment determined that accumulated sediment and freshwater marsh vegetation had accumulated upstream of the Ocean View Blvd. bridge and was contributing to flood risk and reduced capacity of the channel. Based on recent communication with residents, it appeared that several properties, including 818 S. Gregory St., had flooded during recent rain events.

The City's assessment in the southern channel section (MMP Map 93; Figure 3b), which is located directly downstream of MMP Map 91; Figure 3a, determined that sediment build up had narrowed the channel in several locations resulting in reduced flow and that the National Avenue bridge has experienced a 40% reduction in flow capacity from its as-built capacity (Attachment A; Photograph 12). This reduction in the flows under the bridge had also caused flows to back-up upstream, further exaggerating the imminent flood risk to adjacent residences and property and also contributing to the flooding threats discussed in the concrete-lined section (MMP Map 91; Figure 3a).

Emergency maintenance of the channel included the removal of all existing sediment and vegetation, with the exception of 0.11 acres of coastal salt marsh located in the southern section of the proposed maintenance are (MMP Map 93; Figure 3b). Land covers and vegetation impacted by maintenance included 1.69 acres of developed concrete-lined channel, 0.34 acre of natural flood channel (earthen bottom), 0.23 acre of freshwater marsh (earthen bottom), 0.80 acre of freshwater marsh (concrete-lined), 0.06 acre of disturbed wetland (Arundo-dominated), 0.04 acre of open water (earthen bottom), and 0.06 acres of open water (concrete-lined). Total impacts to jurisdictional areas are 3.22 acres (2,899 linear feet) of wetland and non-wetland waters of the U.S. An additional 0.04 acre of disturbed land was maintained and converted to natural flood channel to restore channel capacity.

Survey Methods and Date

Biological Survey and Site Assessment

Dudek conducted the biological survey and site assessment on November 11, 2015. The survey was conducted on foot and the assessment was made from the channel bank. Vegetation was mapped based on site observations and interpretation of aerial photographic signatures (scale 1"=50'), according to the R.F. Holland system (1986) as modified for San Diego County, in accordance with the City's "Guidelines for Conducting Biological Surveys" (2002). Areas on site that supported less than 20% native plant species cover were mapped as disturbed habitat and areas that supported at least 20% native plant species, but fewer than 50% native cover were mapped as a disturbed native vegetation community (e.g., disturbed freshwater marsh). All plant and animal species detected by sight, calls, tracks, scat, or other signs were recorded. Any observed sensitive species were documented and potential for sensitive species occurrence was evaluated based on site conditions. Representative photographs taken during the surveys and monitoring are provided in this report. Protocol-level surveys were not conducted as a part of this site assessment. A site-specific jurisdictional delineation was not performed as a part of this site assessment.

Monitoring of Emergency Maintenance

Biologists Shelley Lawrence, Sean Harris, Shana Carey, and Alicia Omlid were the primary monitors during the Chollas Creek emergency channel maintenance work, which was conducted in 13 work days between December 30, 2015 and January 19, 2016. Crews did not work during rain events or when there were flows within the emergency maintenance area. The biologists were onsite at all times during work. They ensured that crews stayed within the approved limits of work during maintenance and documented all construction activities. The crews used a Gradall, Dozer, Trackhoe, dump trucks, and Bobcat to clear sediment and vegetation from the channel and channel banks. Crews installed a temporary soil berm north of the National Avenue Bridge, due to issues with equipment clearance under the bridge. They used pumps to bypass water downstream and out of the work area and used a filter bag at the hose outlet to reduce turbidity or downstream discharge of sediment. Material removed from the channel was loaded into dump trucks and taken either to the Miramar Landfill or to a stockpiling location in a City-owned lot adjacent to the National Ave. and 33rd St. intersection. Urban Corps crews were used to cut and remove vegetation from along the channel banks, including a large patch of Arundo (Figure 3b), which was sprayed with Roundup. However, the roots of other species were left intact for bank stabilizing purposes. The soil berm north of National Ave. was removed and a temporary earthen berm was constructed south of National Ave. at the downstream end of the work area. This allowed the area under the National Ave. bridge and south of the bridge to be pumped dry and excavated. The soil berm south of the work area was removed after excavations were complete. Sensitive coastal salt marsh within the channel maintenance area was flagged by the project biologist and not impacted by construction activities. All work was monitored by a qualified biologist and all equipment was removed from the site at the

end of the project.

Biological Resources: **Stream Type**: **Perennial** ☐ **Intermittent** X **Ephemeral** ☐

The channel is likely to have intermittent flows during normal climactic conditions. Collected sediments and areas with unmanaged vegetation and a combination of large exotic and native plant growth occurring in some portions of the channel have impeded normal surface flow through obstruction/retention/impoundment of storm water during storm related events.

Vegetation

For purposes of this IBA, all vegetation communities or land covers impacted by the emergency maintenance area are described below. A total of five land cover types and four vegetation community were identified during this assessment: natural flood channel, freshwater marsh (earthen), freshwater marsh (concrete-lined), coastal salt marsh, developed concrete-lined channel, open water (earthen), open water (concrete-lined), disturbed wetland (Arundo-dominated), and disturbed land. Staging and access area were within existing unvegetated disturbed lands and developed areas (not listed in Table 1).

Land cover acreages considered Waters of the U.S. within survey area are summarized in Table 1 below:

Table 1. Existing Vegetation and Land Covers in the Emergency Maintenance Area

Vegetation Community or Land Cover Type	City MSCP Habitat Tier	Acreage
Natural Flood Channel (earthen)	Wetland	0.34
Freshwater Marsh (earthen)	Wetland	0.23
Freshwater Marsh (concrete-lined)	Wetland	0.8
Coastal Salt Marsh	Wetland	0.11
*Developed Concrete-lined Channel	IV*	1.69
Open Water (earthen)	Wetland	0.04
Open Water (concrete-lined)	IV*	0.06
Disturbed Wetland (Arundo dominated)	Wetland	0.06
Disturbed Land	IV	0.04
Total		3.37
*Although described in Appendix D, Section 3.1.2 of the PEIR as a Tier IV upland community, concrete-lined channels are considered waters of the U.S. and as such are subject to regulation by the ACOE, CDFW, and RWQCB).		

These habitats are described below:

Natural Flood Channel
Where the study area was mapped as natural flood channel, the channel was almost completely clear of any vegetation and consisted of sediment and cobble streambed.

Freshwater Marsh (earthen)
Where habitat was mapped as freshwater marsh (earthen), the channel had areas of accumulated sediment with a dominant (>70%) cover of Cattails (*Typha latifolia*) with very few other species mixed in. This habitat occurs in the downstream section of the maintenance area (MMP Map 93; Figure 3b).

Freshwater Marsh (concrete-lined)
Where habitat was mapped as freshwater marsh (concrete-lined), the channel had areas of accumulated sediment with a dominant (>70%) cover of Cattails (*Typha latifolia*) with very few other species mixed in. This habitat occurs in the upstream section of the maintenance area (MMP Map 91; Figure 3a).

Coastal Salt Marsh
Where habitat was mapped as coastal salt marsh within the channel, there was an accumulation of sediment with a dominant (>80%) cover of pickleweed (*Salicornia pacifica*) with only bare ground mixed in. This

habitat only occurred in the downstream section of the maintenance area (MMP Map 93; Figure 3b) in very small patches adjacent to the National Ave. bridge.

Developed Concrete-lined Channel
Where the study area is mapped as disturbed concrete-lined channel, the channel is almost completely clear of any vegetation except for scattered individuals of exotic grass species, such as African fountain grass (*Pennisetum setaceum*).

Open Water (earthen)
Where the study area is mapped as open water (earthen), the channel is virtually clear of any vegetation and consists of only standing or gently flowing water over the earthen-bottom channel within MMP Map 93; Figure 3b.

Open Water (concrete-lined)
Where the study area is mapped as open water (concrete-lined), the channel is virtually clear of any vegetation and consists of only standing or gently flowing water over the concrete-lined channel within MMP Map 91; Figure 3a.

Disturbed Wetland (Arundo dominated)
Where habitat is mapped as disturbed wetland (Arundo dominated), the maintenance area is dominated entirely by giant reed (*Arundo donax*). This habitat was originally identified as located outside of the OHWM and under CDFW-jurisdiction only. However, during a site visit with the Army Corps of Engineers (ACOE), staff indicated that it would be under ACOE/RWQCB jurisdiction.

Disturbed Land
This area occurs on the northern bank of the channel, immediately upstream of National Ave. where bank sloughed into the historic channel area and thus was identified for vegetation and sediment removal. The bank supported nearly 100% cover of ice plant *(Carpobrotus edulis).*

Wildlife Value

Although the habitats within the emergency channel maintenance area are isolated by existing development, they do serve a moderate value to wildlife foraging habitat due to the tidal influence on the channel and the resulting presence of invertebrates and crustaceans species that a variety of wildlife species use as a food source.

Wildlife Observed
Snowy egret
Belted kingfisher
Green heron
American Crow
Black Phoebe
Anna's hummingbird
Mourning Dove
Rock dove
House sparrow
House finch

No nests were identified and the work was conducted outside the breeding season of any sensitive or avian species.

Are there current level of anthropogenic influences on habitat with the project footprint (e.g., homeless encampment, illegal dumping)? Yes X No ☐

If yes, describe the influence:

Anthropogenic disturbances include small trash items and large patches of invasive weed species brought into the earthen channel, which have spread through landscaping, highway projects, and etc., have led to patches of exotics including Arundo. This habitat on site is not suitable for rare plant species.

Crews removed trash from the sides of the channel and within the channel where present.

Are there any conservation easements which have been previously recorded within the maintenance area? Yes ☐ No X

If yes, describe them and their purpose:

Jurisdictional Areas [TOTAL STUDY AREA]

ACOE/RWQCB/CDFW/City

For the Master Maintenance Program, a program-level jurisdictional delineation was conducted within subject storm water facility channels and sedimentation basins with results categorized by HUs. Mapping was conducted along the two main segments of the channel (MMP Maps 91&93; Figures 3a&3b). A site-specific formal jurisdictional delineation of "waters of the United States," was not conducted for the proposed maintenance area. A visual assessment of likely jurisdictional areas was completed to support emergency permit applications. The well-defined limits of the earthen and concrete-lined banks of the channel were considered under the joint jurisdiction of ACOE, RWQCB, and CDFW.

The emergency maintenance impacted the full area within the two sections of channel. The impacts to Waters of the U.S. are shown in Table 2; refer to Table 1 for impacts to City wetlands.

Table 2. Impacts to Jurisdictional Waters/Streambed

Vegetation Community or Land Cover Type	ACOE, RWQCB, and CDFW Jurisdictional Acreage; Non-Wetland Waters of the U.S.
Non-Wetland Water of the US	
Developed Concrete-lined Channel	1.69
Freshwater Marsh (concrete-lined)	0.80
Open Water (concrete-lined)	0.06
Natural Flood Channel (earthen)	0.34
Disturbed Wetland (Arundo-dominated)	0.06
Open Water (earthen)	0.04
Wetland Waters of the US	
Freshwater Marsh (earthen)	0.23
Total	**3.22**

Sensitive* Plant Species Observed: Yes ☐ No X If yes, what species were observed and where? If yes, complete a California Native Species Field Survey Form and submit it to the California Natural Diversity Database. * Sensitive species shall include those listed by state or federal agencies as well as species that could be considered sensitive under Sections 15380(b) and (c) and 15126(c) of the CEQA Guidelines.	**Sensitive* Animal Species Observed/Detected:** Yes ☐ No X If yes, what species were observed/detected and where? If yes, complete a California Native Species Field Survey Form and submit it to the California Natural Diversity Database. * Sensitive species shall include those listed by state or federal agencies as well as species that could be considered sensitive under Sections 15380(b) and (c) and 15126(c) of the CEQA Guidelines.

Is any portion of the maintenance activity within an MHPA? Yes ☐ No X

If yes, describe which portions are within an MHPA:

Is there moderate or high potential for listed animal species to occur in or adjacent to the impact area?
Yes X No ☐

If yes, which species (check all that apply) and describe any surveys which should be undertaken to determine whether those species could occur within the maintenance area:

☐ Least Bell's vireo
☐ Southwester willow flycatcher
☐ Arroyo toad
☐ Coastal California gnatcatcher
☐ San Diego fairy shrimp
☐ Riverside fairy shrimp
X California least tern
X Ridgeway's rail
☐ Western snowy plover
☐ Other: _____

Attach documentation supporting the determination of the presence or absence of listed animal species with a moderate or high potential to occur (e.g. California Natural Diversity Database records searches).

No potential for Least bell's vireo – there is no willow habitat within the maintenance area; all non-native vegetation
No potential for willow flycatcher – there is no willow habitat within the maintenance area; all non-native vegetation
No potential for Arroyo toad –steep banks and disturbed areas adjacent.
No potential for California gnatcatcher – no upland habitat consisting of California sagebrush (*Artemisia californica)*, California buckwheat (*Eriogonum fasciculatum*), Laurel sumac (*Malosma Laurina*),
No potential for fairy shrimp species – No vernal pools exist or mud puddles with potential for cysts
Moderate potential for California least tern –No open sandy beach habitat however there are muddy open channel areas that could provide suitable foraging for California least tern. However, no least tern were observed during maintenance.
Moderate potential for Ridgeway's rail- there is a moderate potential for Ridgeway's rail to forage in the channel due to the channel's tidal influence, however this species typically prefers bays with cordgrass. No Ridgeway's rail were observed during maintenance.
Low potential for Western snowy plover- more likely to be found in bays, shores and estuaries. Limited habitat exists within the channel. No Western snowy plover were observed during maintenance.

Is there moderate or high potential for a listed plant species to occur in or adjacent to the impact area?
Yes ☐ No X

If yes, identify which species may occur and describe any surveys which should be undertaken to determine whether those species could occur within the maintenance area:

No listed plant species were observed during the biological site assessment.

Attach documentation supporting the determination of the presence or absence of listed animal species with a moderate or high potential to occur (e.g. California Natural Diversity Database records searches).

Could maintenance disrupt the integrity of an important habitat (i.e., disruption of a wildlife corridor and/or an extensive riparian woodland: Yes ☐ No X

If yes, discuss which habitat could be impacted and how:

Could work be conducted during the avian breeding season (January 15 – August 31) without the need for pre-construction nesting surveys: Yes ☐ No X

If yes, provide justification:
A wildlife survey was performed before each day of work commenced and all wildlife are listed above. The maintenance was conducted outside the avian breeding season.

Is it anticipated that maintenance activities would generate noise in excess of 60 dB(A) L_{eq}?
Yes X No ☐

If yes, what measures should be taken to avoid adverse impacts on avian bird breeding within or adjacent to the maintenance?

No measures were necessary as the maintenance was conducted outside the avian breeding season.

Biological Resource Conditions (vegetation communities present, including adjacent uplands; general habitat quality/level of disturbance):

There are no native habitat communities within the channel, and vegetation within and adjacent to the channel is dominated by non-native vegetation (i.e. exotic grasses, Arundo, etc.). The maintenance area is small and, it has little connectivity to native communities. The areas surrounding the maintenance section is primarily composed of developed residential homes with some disturbed land dominated by non-native grasses such as foxtail brome (*Bromus madritensis ssp. rubens*) east of MMP Map 67; Figure 3a.

MAINTENANCE IMPACTS

Emergency Maintenance Methodology:

As part of this emergency maintenance, all sediment and vegetation that had accumulated within each of the two channel sections was removed. In the first section located just east of South Gregory St. (MMP Map 91; Figure 3a), all materials were excavated from the channel segments utilizing the Loader, Dozer, Trackhoe, and dump trucks. Equipment accessed this concrete-lined channel section via the access point at the north end of MMP Map 91; Figure 3a. The Gradall was staged outside and above the channel within the disturbed Access/Staging area to the. A Pole Saw and chainsaws were also used to remove a large exotic tree on the southwestern end of this section.

In the second section, which is earthen and is located directly north of the National Ave. bridge (MMP Map 93; Figure 3b), the Loader, Dozer, and Trackhoe were also used to clear sediment and create a soil berm at the downstream end of the section. A Bobcat was also used to access areas near the bridge. Gas pumps were used to bypass water around the downstream berm and a filter bag was used at the hose outlet to prevent sediment and debris from being discharged downstream. Some vegetation within and adjacent to the channel were also removed using hand tools and chainsaws, including Arundo. The Arundo rhizomes were treated with Roundup to prevent future recruitment.

The materials removed were loaded into dump trucks and hauled offsite to an approved dumpsite (the Miramar Landfill) or they were stockpiled at the City-owned open lot adjacent to the National Ave. and 33rd St. intersection to be disposed of at a later date. All work was monitored by a qualified biologist and all equipment and materials were removed following completion of the work.

Vegetation Impacts:

A total of 3.26 acres of vegetation/land covers were impacted during this maintenance. See Table 3 below for acreages.

Table 3. Vegetation Impacts in the Emergency Maintenance Area

Vegetation Community or Land Cover Type	City MSCP Habitat Tier	Acreage
Natural Flood Channel	Wetland	0.34
Freshwater Marsh (earthen)	Wetland	0.23
Freshwater Marsh (concrete-lined)	Wetland	0.80
*Developed Concrete-lined Channel	IV	1.69
Open Water (earthen)*	Wetland	0.04
Open Water (concrete-lined)	IV	0.06
Disturbed Wetland (Arundo dominated)	Wetland	0.06
Disturbed Land	IV	0.04
Total		**3.26**
*Open water (earthen) is not listed in Table 2a of the City's Biological Guidelines but can be considered equivalent to natural flood channel.		

Jurisdictional Impacts:
(See Table 2 above)

Is there a moderate or high potential for maintenance to impact an MHPA? Yes ☐ No X

If yes, discuss the potential impacts that could occur from the portion within or adjacent to that MHPA.
The site is not within or adjacent to the City's MHPA.

Is there moderate or high potential for listed animal species to be impacted? Yes ☐ No X

While there is a moderate potential for Ridgeway's (light-footed) clapper rail and California least tern to occasionally forage within the work area, these species were not detected during the 13 full days of biological monitoring observations. The loss of habitat within this highly urbanized area would not significantly impact these species, as it not suitable for breeding or significant foraging.

If yes, which species (check all that apply):

☐ Least Bell's vireo
☐ Southwester willow flycatcher
☐ Arroyo toad
☐ Coastal California gnatcatcher
☐ San Diego fairy shrimp
☐ Riverside fairy shrimp
☐ California least tern
☐ Light-footed clapper rail
☐ Western snowy plover
☐ Other: _____

MITIGATION

Applicable Maintenance Protocols (list the applicable maintenance protocols based on the biological resources occurring or likely to occur on site – include any special protocols required):

The following maintenance protocols from section 4 of the MMP have been/will be implemented:

Bio-1 Restrict vehicles to access designated in the master program plan.

Bio-2 Flag and delineate all sensitive biological resources to remain within or adjacent to the maintenance area prior to initiation of maintenance activities in accordance with the site specific Individual Biology Assessment (IBA), Individual Hydrology and Hydraulic Assessment (IHHA) and/or Individual Maintenance Plan (IMP).

Bio-3 Conduct a pre-maintenance meeting on-site prior to the start of any maintenance activity that occurs within or adjacent to sensitive biological resources. The pre-maintenance meeting shall include the qualified biologist, field engineer/planner, equipment operators/superintendent and any other key personnel conducting or involved with the channel maintenance activities. The qualified biologist shall point out or identify sensitive biological resources to be avoided during maintenance, flag/delineate sensitive resources to be avoided, review specific measures to be implemented to minimize direct/indirect impacts, and direct crews or other personnel to protect sensitive biological resources as necessary. The biologist shall also review the proposed erosion control methods to confirm that they would not pose a risk to wildlife (e.g., non-biodegradable blankets which may entangle wildlife).

Bio-4 Avoid introduction of invasive plant species with physical erosion control measures (e.g., fiber mulch, rice straw, etc.).

Bio-6 Remove Arundo through one, or a combination of, the following methods : (1) foliar spray (spraying herbicide on leaves and stems without cutting first) when Arundo occurs in monotypic stands, or (2) cut and paint (cutting stems close to the ground and spraying or painting herbicide on cut stem surface) when Arundo is intermixed with native plants. When sediment supporting Arundo must be removed, the sediment shall be excavated to a depth sufficient to remove the rhizomes, wherever feasible. Following removal of sediment containing rhizomes, loose rhizome material shall be removed from the channel and disposed offsite. After the initial treatment, the area of removal shall be inspected on a quarterly basis for up two years, or until no re-sprouting is observed during an inspection. If re-sprouting is observed, the cut and paint method shall be applied to all resprouts.

Applicable PEIR mitigation measures:

General Mitigation 1, 2, 3, and 4;

Biological Resources 4.3.1, 4.3.5, 4.3.6, 4.3.7, 4.3.8, 4.3.9, 4.3.10, 4.3.13, 4.3.16, 4.3.18, 4.3.19, 4.3.20, 4.3.25*;

Land Use 4.1.6 and 4.1.7.

Applicable PEIR Mitigation Measures have been included in their entirety in Attachment A.

*It should be noted that, since this channel work was conducted as emergency maintenance, some requirements in the PEIR could not be directly adhered to due to the need to conduct the work in as quickly a manner as possible in order to reduce the existing threat from flooding to adjacent properties.

Other mitigation measures:
None

Environmental Mitigation Requirements (including wetland enhancement, restoration, creation, and/or purchase of wetland credits in a mitigation bank; off-site upland habitat acquisition/payment into the City's habitat acquisition fund):

All work was limited to sediment and vegetation within the earthen and concrete-lined channels in the two maintenance sections. Vegetation communities and land covers that were removed as part of this maintenance included 0.34 acre of natural flood channel, 1.69 acres of developed concrete-lined channel, 0.23 acre freshwater marsh (earthen), 0.80 acre freshwater marsh (concrete-lined), 0.04 acre open water (earthen), 0.06 acre open water (concrete-lined), and 0.06 acres of disturbed wetland (Arundo-dominated). The project resulted in the re-establishment of 0.04 acre of natural flood channel through the removal of disturbed land.

USACE/RWQCB/CDFW Jurisdictional Wetlands:

The USACE authorized the approved maintenance on December 17, 2015 through issuance of a Regional General Permit 63 Authorization (SPL-2015-00887-RAG) without the requirement for mitigation. This report will be provided to the USACE as a post-maintenance report, pursuant to RGP 63.

The San Diego RWQCB acknowledged the Army Corps of Engineer's RGP 63 authorization for the project in an email from Lisa Honma dated December 21, 2015. The email states: "Consistent with the San Diego Water Board's approach in certifying routine channel maintenance projects and in accordance with section VI of Clean Water Act Section 401 Water Quality Certification for U.S. Army Corps of Engineers Reauthorization of Regional General Permit 63 for Repair and Protection Activities in Emergency Situations, SB13006IN (RGP-63 Certification), the City of San Diego will be required to provide compensatory mitigation for permanent impacts that result in a loss of functions in the amount of 2:1 (area mitigated:area impacted) in wetland enhancement for the removal of freshwater marsh. No compensatory mitigation will be required for the removal of non-native vegetation, unvegetated stream channel, or open water." As such, a subsequent mitigation plan or purchase of approved mitigation credits totaling 2.06 ac is required to be submitted to the San Diego RWQCB for impacts 0.80 acres of freshwater marsh (concrete-lined) and 0.23 acres of freshwater marsh (earthen). Contact information and details regarding the mitigation site/credits will be provided to the San Diego RWQCB. It should be noted that since the San Diego RWQCB has required mitigation for "permanent impacts" of the project, the City requests that the San Diego RWQCB provide written acknowledgment that the required mitigation is adequate to mitigate any future maintenance of this channel that results in similar loss of functions (i.e., vegetation and sediment removal within the same maintenance footprint).

While CDFW requires notification of emergency maintenance activities, it typically does not require compensatory mitigation for such impacts. This report will be provided to the CDFW as a post-maintenance report, pursuant to emergency Streambed Alteration Agreement requirements.

City Wetlands:

The City regulates wetland impacts and requires compensatory mitigation pursuant to the mitigation ratios specified in Site Development Permit (SDP) 1134892 for the MMP. The SDP incorporates mitigation language from the Coastal Development Permit (CDP) 714392. Special Condition 9 of the CDP states that wetlands mitigation shall "result in a no-net-loss of function and values and be in-kind habitat to the fullest extent possible. All wetland mitigation shall occur within nine months of impact and either be located on-site or within the same watershed. All wetland impacts shall be mitigated at a ratio of 1:1 for temporary impacts, 2:1 for natural flood channel, and 4:1 for freshwater marsh and disturbed wetland (removal of giant reed (Arundo) and other exotic, invasive and nonnative vegetation is not considered an impact to wetlands requiring mitigation)." The SDP, however, does allow for mitigation to be implemented in one year and not the nine months the CDP requires.

Given that the emergency maintenance conducted is a one-time authorization, impacts are considered temporary and mitigation is required at a 1:1 ratio for impact to 0.34 acre of natural flood channel, 0.23 acre of freshwater marsh (earthen), 0.80 acre freshwater marsh (concrete-lined), and 0.04 acre open water (earthen; equivalent to natural flood channel). No mitigation is required for impacts to developed concrete-lined channel, open water (concrete-lined) or disturbed wetland (Arundo-dominated). A total of 1.41 acres of mitigation is required to mitigate for these one-time temporary impacts.

As an alternative, the City may choose to provide mitigation for permanent impacts, such that future maintenance within this area would not require additional mitigation. Mitigation for permanent impacts would total 4.88 acres.

Mitigation Description/Location

The mitigation site/bank location is yet to be determined. At a minimum, in accordance with the SDP, 1.41 acres of mitigation will be implemented or secured within one year of the impact (i.e., by January 19, 2017). The San Diego RWQCB has not indicated a timing requirement associated with the 2:1 mitigation required under their authorization of RGP 63.

ADDITIONAL COMMENTS OR RECOMMENDATIONS

Attachments

Attachment 1: Applicable PEIR Mitigation Measures

References

Developmental Services Department (DSD) Notice of Exemption (NOE); Emergency Project (Section 21080(b)(4); 15269(b) &(c)

Regional Water Quality Control Board (RWQCB) Attachments D & E

Army Corps of Engineers (ACOE) Regional General Permit 63 Emergency; SPL-2015-00887-RAG

California Dept. of Fish and Wildlife (CDFW) Lake or Streambed Alteration Agreement (1600); Notification of Emergency Work

City of San Diego. 2000. San Diego Municipal Code Land Development Code Biology Guidelines. San Diego, California: June 2000.

City of San Diego. 2002. Guidelines for Conducting Biological Surveys. San Diego, California: October 1998, revised July 2002.

City of San Diego. 2011a. Master Storm Water Maintenance Program. San Diego, California: October 2011

Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. California Department of Fish and Game, Sacramento, California.

SITE PHOTOS

Photograph Log

Photograph 1: Looking upstream from the northern Access/Staging area into the Chollas Creek channel at the sand bag berm adjacent to Durant St. within MMP Map 91; Figure 3a.	**Photograph 2:** Looking upstream adjacent to Durant St. at a bypass pump within MMP Map 91; Figure 3a.
	
(December 30, 2015)	(December 30, 2015)

Photograph 4: Looking at work being conducted in the earthen section just north of the National Ave. bridge the south end of the maintenance area (MMP Map 93; Figure 3b).  (December 30, 2015)	**Photograph 5:** Looking at the berm created on the north National Ave. during maintenance at the south end of the maintenance area.  (December 30, 2015)

Photograph 6: Looking downstream at the southernmost Access/Staging area on the northeast end of the National Ave. bridge as crews prepare to access the maintenance area.	**Photograph 7:** Looking upstream from the National Ave. bridge from the south end of MMP Map 93; Figure 3b during maintenance work.
	
(December 30, 2015)	(January 3, 2016)

Photograph 8: Looking downstream during maintenance in the upstream concrete-lined section of the channel with MMP Map 91; Figure 3a.  (January 3, 2016)	**Photograph 9:** Looking upstream from the National Ave. bridge from the south end of MMP Map 93; Figure 3b during maintenance work.  (January 15, 2016)

Photograph 10: Looking upstream portion of the channel south of the National Ave. bridge as crews construct the berm.  (January 16, 2016)	**Photograph 11:** Looking downstream from the National Ave. bridge from the south end of MMP Map 93; Figure 3b during maintenance work.  (January 16, 2016)

Photograph 12: Looking at the north side of the National Ave. bridge as crews remove the berm.  (January 18, 2016	**Photograph 7:** Looking upstream from the National Ave. bridge following completion of maintenance.  (January 18, 2016)

Photograph 6: Looking upstream towards the National Ave. bridge as following completion of maintenance.  (January 18, 2016)	**Photograph 7:** Looking downstream at the concrete channel following completion of maintenance work.  January 19, 2016

Attachment 1
Applicable PEIR Mitigation Measures

GENERAL

General Mitigation 1: Prior to commencement of work, the Assistant Deputy Director (ADD) Environmental Designee of the Entitlements Division shall verify that mitigation measures for impacts to biological resources (Mitigation Measures 4.3.1 through 4.3.20), historical resources (Mitigation Measures 4.4.1 and 4.4.2), land use policy (Mitigation Measures 4.1.1 through 4.1.13), paleontological resources (Mitigation Measure 4.7.1), and water quality (Mitigation Measures 4.8.1 through 4.8.3) have been included in entirety on the submitted maintenance documents and contract specifications, and included under the heading, "Environmental Mitigation Requirements." In addition, the requirements for a Pre-maintenance Meeting shall be noted on all maintenance documents.

General Mitigation 2: Prior to the commencement of work, a Pre-maintenance Meeting shall be conducted and include, as appropriate, the MMC, SWD Project Manager, Biological Monitor, Historical Monitor, Paleontological Monitor, Water Quality Specialist, and Maintenance Contractor, and other parties of interest.

General Mitigation 3: Prior to the commencement of work, evidence of compliance with other permitting authorities is required, if applicable. Evidence shall include either copies of permits issued, letters of resolution issued by the Responsible Agency documenting compliance, or other evidence documenting compliance and deemed acceptable by the ADD Environmental Designee.

BIOLOGICAL RESOURCES

Mitigation Measure 4.3.1: Prior to commencement of any activity within a specific annual maintenance program, a qualified biologist shall prepare an IBA for each area proposed to be maintained. The IBA shall be prepared in accordance with the specifications included in the Master Program.

(Mitigation Measure 4.3.2 not applicable)
(Mitigation Measure 4.3.3 not applicable)
(Mitigation Measure 4.3.4 not applicable)

Mitigation Measure 4.3.5: Prior to commencing any activity that could impact wetlands, evidence of compliance with other permitting authorities is required, if applicable. Evidence shall include copies of permits issued, letters of resolution issued by the Responsible Agency documenting compliance, or other evidence documenting compliance and deemed acceptable by the ADD Environmental Designee.

Mitigation Measure 4.3.6: Prior to commencing any activity where the IBA indicates significant impacts to biological resources may occur, a pre-maintenance meeting shall be held on site with the following in attendance: City's SWD Maintenance Manager (MM), MMC, and Maintenance Contractor (MC). The biologist selected to monitor the activities shall be present. At this meeting, the monitoring biologist shall identify and discuss the maintenance protocols that apply

to the maintenance activities. At the pre-maintenance meeting, the monitoring biologist shall submit to the MMC and MC a copy of the maintenance plan (reduced to 11"x17") that identifies areas to be protected, fenced, and monitored. This data shall include all planned locations and design of noise attenuation walls or other devices. The monitoring biologist also shall submit a maintenance schedule to the MMC and MC indicating when and where monitoring is to begin and shall notify the MMC of the start date for monitoring.

Mitigation Measure 4.3.7: Within three months following the completion of mitigation monitoring, two copies of a written draft report summarizing the monitoring shall be prepared by the monitoring biologist and submitted to the MMC for approval. The draft monitoring report shall describe the results including any remedial measures that were required. Within 90 days of receiving comments from the MMC on the draft monitoring report, the biologist shall submit one copy of the final monitoring report to the MMC.

Mitigation Measure 4.3.8: Within six months of the end of an annual storm water facility maintenance program, the monitoring biologist shall complete an annual report which shall be distributed to the following agencies: the City of San Diego DSD, CDFG, RWQCB, USFWS, and Corps.
At a minimum, the report shall contain the following information:

- Tabular summary of the biological resources impacted during maintenance and the mitigation;
- Master table containing the following information for each individual storm water facility or segment which is regularly maintained;
- Date and type of most recent maintenance;
- Description of mitigation which has occurred; and
- Description of the status of mitigation which has been implemented for past maintenance activities.

Mitigation Measure 4.3.9: Wetland impacts resulting from maintenance shall be mitigated in one of the following two ways: (1) habitat creation, restoration, and/or enhancement, or (2) mitigation credits. The amount of mitigation shall be in accordance with ratios in Table 4.3-10 unless different mitigation ratios are required by state or federal agencies with jurisdiction over the impacted wetlands. In this event, the mitigation ratios required by these agencies will supersede, and not be in addition to, the ratios defined in Table 4.3-10. No maintenance shall commence until the ADD Environmental Designee has determined that mitigation proposed for a specific maintenance activity meets one of these two options.

Mitigation locations for wetland impacts shall be selected using the following order of preference, based on the best mitigation value to be achieved:

1. Within impacted watershed, within City limits.
2. Within impacted watershed, outside City limits on City-owned or other publicly-owned land.
3. Outside impacted watershed, within City limits.
4. Outside impacted watershed, outside City limits on City-owned or other publically-owned land.

In order to mitigate for impacts in an area outside the limits of the watershed within which the impacts occur, the SWD must demonstrate to the satisfaction of the ADD Environmental Designee in consultation

with the Resource Agencies that no suitable location exists within the impacted watershed.

Mitigation Measure 4.3.10: Whenever maintenance will impact wetland vegetation, a wetland mitigation plan shall be prepared in accordance with the Conceptual Wetland Restoration Plan contained in Appendix H of the Biological Technical Report, included as Appendix D.3 of the PEIR.
Mitigation which involves habitat enhancement, restoration or creation shall include a wetland mitigation plan containing the following information:

- Conceptual planting plan including planting zones, grading, and irrigation;
- Seed mix/planting palette;
- Planting specifications;
- Monitoring program including success criteria; and
- Long-term maintenance and preservation plan.
- Mitigation which involves the use of mitigation credits shall include the following:
- Location of the mitigation bank;
- Description of the credits to be acquired including support for the conclusion that the acquired habitat mitigates for the specific maintenance impact; and
- Documentation that the credits are associated with a mitigation bank which has been approved by the appropriate Resource Agencies.

Mitigation Measure 4.3.11: Not applicable

Mitigation Measure 4.3.12: Not applicable

Mitigation Measure 4.3.13: Prior to commencing any maintenance activity which may impact sensitive biological resources, the monitoring biologist shall verify that the following actions have been taken, as appropriate:
• Fencing, flagging, signage, or other means to protect sensitive resources to remain after maintenance have been implemented;
• Noise attenuation measures needed to protect sensitive wildlife are in place and effective; and/or
• Nesting raptors have been identified and necessary maintenance setbacks have been established if maintenance is to occur between January 15 and August 31. The designated biological monitor shall be present throughout the first full day of maintenance, whenever mandated by the associated IBA. Thereafter, through the duration of the maintenance activity, the monitoring biologist shall visit the site weekly to confirm that measures required to protect sensitive resources (e.g., flagging, fencing, noise barriers) continue to be effective. The monitoring biologist shall document monitoring events via a Consultant Site Visit Record. This record shall be sent to the MM each month. The MM will forward copies to MMC.

Mitigation Measure 4.3.14: Not applicable

Mitigation Measure 4.3.15: Not applicable

Maintenance Measure 4.3.16: Maintenance activities shall not occur within the following areas:
• 300 feet from any nesting site of Cooper's hawk (*Accipiter cooperii*);
• 1,500 feet from known locations of the southern pond turtle (*Clemmys marmorata pallida*);
• 900 feet from any nesting sites of northern harriers (*Circus cyaneus*);
• 4,000 feet from any nesting sites of golden eagles (*Aquila chrysaetos*); or
• 300 feet from any occupied burrow or burrowing owls (*Athene cunicularia*).

Mitigation Measure 4.3.17: Not applicable

Mitigation Measure 4.3.18: If a subject species is not detected during the protocol survey, the qualified biologist shall submit substantial evidence to the ADD Environmental Designee and an applicable resource agency which demonstrates whether or not mitigation measures such as noise walls are necessary between the dates stated for each species. If this evidence concludes that no impacts to this species are anticipated, no mitigation measures would be necessary.

Mitigation Measure 4.3.19: If the SWD chooses not to do the required surveys, then it shall be assumed that the appropriate avian species are present and all necessary protection and mitigation measures shall be required as described in Mitigation Measure 4.3.21.

Mitigation Measure 4.3.20: If no surveys are completed and no sound attenuation devices are installed, it will be assumed that the habitat in question is occupied by the appropriate species and that maintenance activities would generate more than 60dB(A)L_{eq} within the habitat requiring protection. All such activities adjacent to protected habitat shall cease for the duration of the breeding season of the appropriate species and a qualified biologist shall establish a limit of work.

Mitigation Measure 4.3.21: Not applicable

Mitigation Measure 4.3.22: Not applicable

Mitigation Measure 4.3.23: Not applicable

Mitigation Measure 4.2.24: Not applicable

Mitigation Measure 4.2.25: In order to avoid impacts to nesting avian species, including those species not covered by the MSCP, maintenance within or adjacent to avian nesting habitat shall occur outside of the avian breeding season (January 15 to August 31) unless postponing maintenance would result in a threat to human life or property.

LAND USE

Mitigation Measure 4.1.1: Not applicable

Mitigation Measure 4.1.2: Not applicable

Mitigation Measure 4.1.3: Not applicable

Mitigation Measure 4.1.4: Not applicable

Mitigation Measure 4.1.5: Not applicable

Mitigation Measure 4.1.6: A pre-maintenance meeting shall be held with the Maintenance Contractor, City representative and the Project Biologist. The Project Biologist shall discuss the sensitive nature of the adjacent habitat with the crew and subcontractor. Prior to the pre-maintenance meeting, the following shall be completed:

• The Storm Water Division (SWD) shall provide a letter of verification to the Mitigation Monitoring Coordination Section stating that a qualified biologist, as defined in the City of San Diego Biological Resources Guidelines, has been retained to implement the projects MSCP monitoring Program. The letter shall include the names and contact information of all persons involved in the

Biological Monitoring of the project. At least thirty days prior to the pre-maintenance meeting, the qualified biologist shall submit all required documentation to MMC, verifying that any special reports, maps, plans and time lines, such as but not limited to, revegetation plans, plant relocation requirements and timing, MSCP requirements, avian or other wildlife protocol surveys, impact avoidance areas or other such information has been completed and updated.
• The limits of work shall be clearly delineated. The limits of work, as shown on the approved maintenance plan, shall be defined with orange maintenance fencing and checked by the biological monitor before initiation of maintenance. All native plants or species of special concern, as identified in the biological assessment, shall be staked, flagged and avoided within Brush Management Zone 2, if applicable.

Mitigation Measure 4.1.7: Maintenance plans shall be designed to accomplish the following.
• Invasive non-native plant species shall not be introduced into areas adjacent to the MHPA. Landscape plans shall contain non-invasive native species adjacent to sensitive biological areas, as shown on the approved maintenance plan.
• All lighting adjacent to, or within, the MHPA shall be shielded, unidirectional, low pressure sodium illumination (or similar) and directed away from sensitive areas using appropriate placement and shields. If lighting is required for nighttime maintenance, it shall be directed away from the preserve and the tops of adjacent trees with potentially nesting raptors, using appropriate placement and shielding.
• All maintenance activities (including staging areas and/or storage areas) shall be restricted to the disturbance areas shown on the approved maintenance plan. The project biologist shall monitor maintenance activities, as needed, to ensure that maintenance activities do not encroach into biologically sensitive areas beyond the limits of work as shown on the approved maintenance plan.
• No trash, oil, parking or other maintenance-related activities shall be allowed outside the established maintenance areas including staging areas and/or storage areas, as shown on the approved maintenance plan. All maintenance related debris shall be removed off-site to an approved disposal facility.
• Access roads through MHPA-designated areas shall comply with the applicable policies contained in the "Roads and Utilities Construction and Maintenance Policies" identified in Section 1.4.2 of the City's Subarea Plan.

Mitigation Measure 4.1.8: Not applicable